For Immediate Release
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WAVE GARDEN
A project by YUSUKE OBUCHI

On view May 14–June 22, 2002

Location: Storefront for Art and Architecture
97 Kenmare Street
New York, NY 10012

Trains: 6 Spring Street; N/R Prince Street; and F/V Broadway Lafayette

Gallery hours: Tuesday–Saturday, 11-6 p.m., Thursday, 11-8 p.m.

"Wave Garden"

Model: 4' x 6 ' floating membrane composed of over 1800 plastic panels, suspended by a system of over 3000 counterweights. The model is a drawing machine. The counter weights can be used (by viewers) to change the form of the membrane. Hovering 4' feet above the floor, the counter weights fan-out over 70 feet of the gallery wall, creating a linear representation/diagram of the form that they collectively materialize in the surface of the model.

This is the first solo exhibition of Yusuke Obuchi's work.

Photos available upon request.

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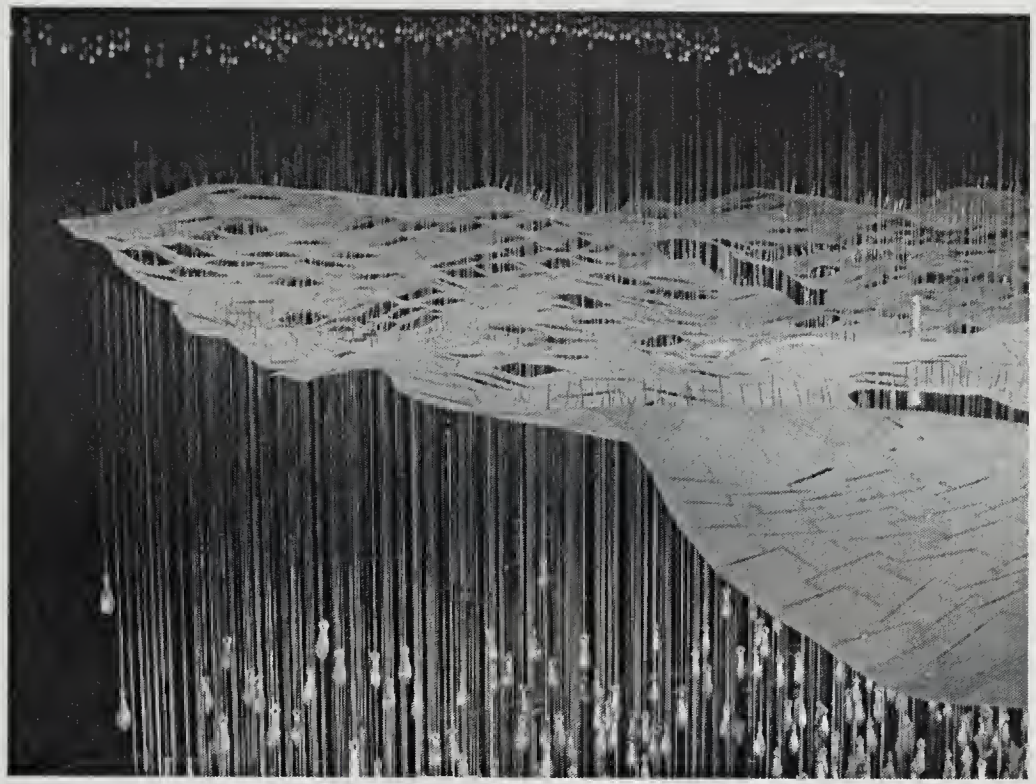
Founded in 1982, Storefront for Art and Architecture is a non-profit organization committed to the advancement of innovative positions in architecture, art and design.

Architecture: Storefront's façade was designed by architect Steven Holl and artist Vito Acconci (1993). This collaborative building project, commissioned by the gallery, resulted in a 100 foot long wall with 12 pivoting panels that completely open the interior of the gallery to the street, weather permitting.

# STOREFRONT FOR ART AND ARCHITECTURE

*Wave Garden*



A Project by Yusuke Obuchi

"It is perhaps no accident that Yusuke Obuchi, an itinerant expatriate since the age of sixteen, so clearly intuits the possibilities of change in a profession whose codes have traditionally valorized gravity, permanence and stasis."

-Jesse Reiser

"In short, the Wave Garden is not whimsical, yet neither is it practical; it is precisely utopian, and it is this dimension that renders it both liberatory and critical, as is true of all utopian proposals. For it forces us, if only for a moment, to think 'why not?', and the force of this why-not is to open up and to critique, if only for a moment, what-is."

-Hal Foster

Floating along the California coastline, the Wave Garden functions as an alternative power plant Monday through Friday. A 480-acre membrane made of 1,734 piezoelectric tiles oscillates with the ocean waves generating electricity for California's residents. On weekends when energy consumption drops, zones of the power plant's surface rise above the ocean, and the flexible tiles are transformed into a stable platform. These stable portions of the Wave Garden's surface are then opened up for recreational use—creating a park whose availability to the public is inversely proportionate to its consumption of electricity.

Obuchi's installation at Storefront features what he refers to as a drawing machine—a 4' x 6 ' floating membrane made of 1,734 articulated panels suspended by a system of 3,468 counterweights and over 8 miles of fishing line.

Wave Garden is on view until June 29th, 2002 at Storefront for Art and Architecture, 97 Kenmare Street. The gallery is open Tuesday through Saturday, 11 AM to 6 PM. Contact Sarah Herda at (212) 431-5795 for more information.

# wave
# garden

## yusuke obuchi

The Wave Garden is a prototype designed to succeed the Diablo Canyon nuclear power plant, after its 40-year operating license expires in the year 2026. As an alternative to nuclear power and other conventional energy sources, the Wave Garden is an electrical power plant that derives energy from the movement of ocean waves.

Energy requires a form of mediation in order to transform from one state of being to another. Ocean waves are physical manifestations of energy derived from the process of the ocean stabilizing itself, transferring energy from one form to another–ocean water is the medium in which wind transfers into wave.

The social demand of electricity behaves similar to ocean waves. Like the energy that forms the wave, the flow of electricity emerges from a logical demand produced by society, creating a rhythm that fluctuates according to natural temporal cycles such as time of day or day of the week.

However unlike energy occurring as a natural phenomenon, electric energy functions in society as a one-way system. In order to achieve efficient energy production in the U.S., the social demand and supply of electricity are carefully regulated in terms of forecasting demand and effectively distributing energy through an electrical infrastructure. In the case of California, the Independent System Operator, ISO, a central energy controlling institution, oversees 90% of the state's energy demand, checking the consumption patterns every five minutes in order to forecast and direct the amount of energy production for individual power plants.

# technology

The Wave Garden membrane consists of 480 acres of tiled, three inch thick Piezoelectric sheets to create a continuous membrane. The piezoelectric membrane is essentially a flexible electricity generator. The basic principle of piezoelectricity is that an electric charge is generated by applying stress to the material through bending. The piezoelectric sheets are deployed in multiple, positively and negatively charged layers. These layers become charged by the bending caused by the motion of the waves. Conversely, applying electric current to the membrane causes a deformation to its physical form. These two modes of material properties, one being an electric generator and the other being a form generator, define the physical condition of the Wave Garden.